This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (currently amended): A magnetic head including a read head element, comprising:
- 2 a pinned magnetic layer;
- a free magnetic layer having a central portion thereof having a free magnetization
- 4 therewithin;
- a magnetic bias layer, including a central portion thereof that is disposed across said
- 6 central portion of said free magnetic layer;
- 7 said central portion of said bias layer being comprised of a material having an
- 8 approximately zero magnetic moment;
- 9 a pair of electrical leads being disposed above said bias layer and on opposite sides of
- said central portion of said bias layer;
- a barrier layer being disposed across said central portion of said bias layer, wherein said
- barrier layer is disposed only upon said central portions of said bias layer and upon said electrical
- 13 leads.
- 1 2. (original): A magnetic head as described in claim 1 wherein said central portion of said
- 2 bias layer is comprised of an oxidized material, and said barrier layer is comprised of a material
- 3 that is a barrier to oxygen diffusion from said central portion of said bias layer.
- 1 3. (original): A magnetic head as described in claim 2, further including a thin spacer layer
- 2 that is disposed upon said free magnetic layer, wherein said bias layer is disposed upon said thin
- 3 spacer layer and said barrier layer is deposed upon said bias layer.

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- 1 4. (original): A magnetic head as described in claim 3 wherein said barrier layer is
- 2 comprised of a material that has low electrical conductivity.
- 1 5. (original): A magnetic head as described in claim 4 wherein said barrier layer is
- 2 comprised of Ru or Rh.
- 1 6. (original): A magnetic head as described in claim 5 wherein said barrier layer is
- 2 comprised of Ru having a thickness of from approximately 5 Å to approximately 40 Å.
- 1 7. (original): A magnetic head as described in claim 6 wherein said barrier layer has a
- 2 thickness of approximately 20 Å.
- 1 8. (original): A magnetic head as described in claim 3 wherein said thin spacer layer is
- 2 comprised of a material that is a barrier to oxygen diffusion.
- 1 9. (original): A magnetic head as described in claim 8 wherein said thin spacer layer is
- 2 comprised of Ru.
- 1 10. (currently amended): A hard disk drive including a magnetic head including a read head
- 2 element, comprising:
- 3 a pinned magnetic layer;
- a free magnetic layer having a central portion thereof having a free magnetization
- 5 therewithin;

- a magnetic bias layer, including a central portion thereof that is disposed across said

 central portion of said free magnetic layer;
- 8 said central portion of said bias layer being comprised of a material having an
- 9 approximately zero magnetic moment;
- a pair of electrical leads being disposed above said bias layer and on opposite sides of
 said central portion of said bias layer;
- a barrier layer being disposed across said central portion of said bias layer, wherein said
- 13 <u>barrier layer is disposed only upon said central portions of said bias layer and upon said electrical</u>
- 14 leads.
- 1 11. (original): A magnetic head as described in claim 10 wherein said central portion of said
- 2 bias layer is comprised of an oxidized material, and said barrier layer is comprised of a material
- 3 that is a barrier to oxygen diffusion from said central portion of said bias layer.
- 1 12. (original): A magnetic head as described in claim 11, further including a thin spacer
- 2 layer that is disposed upon said free magnetic layer, wherein said bias layer is disposed upon said
- 3 thin spacer layer and said barrier layer is deposed upon said bias layer.
- 1 13. (original): A magnetic head as described in claim 12 wherein said barrier layer is
- 2 comprised of a material that has low electrical conductivity.
- 1 14. (original): A magnetic head as described in claim 13 wherein said barrier layer is
- 2 comprised of Ru or Rh.

- 1 15. (original): A magnetic head as described in claim 14 wherein said barrier layer is _
- 2 comprised of Ru having a thickness of from approximately 5 Å to approximately 40 Å.
- 1 16. (original): A magnetic head as described in claim 15 wherein said barrier layer has a
- 2 thickness of approximately 20 Å.
- 1 17. (original): A magnetic head as described in claim 12 wherein said thin spacer layer is
- 2 comprised of a material that is a barrier to oxygen diffusion.
- 1 18. (original): A magnetic head as described in claim 17 wherein said thin spacer layer is
- 2 comprised of Ru.
- 1 19. (currently amended): A method for fabricating a magnetic head, comprising:
- 2 fabricating a free magnetic layer;
- fabricating a magnetic bias layer across said free magnetic layer;
- 4 <u>fabricating electrical leads above portions of said bias layer;</u>
- 5 oxidizing a central portion of said bias layer;
- depositing an oxygen diffusion barrier layer upon said oxidized central portion of said
- 7 bias layer and upon said electrical leads; and
- 8 removing portions of said barrier layer that are deposited at locations other than upon said
- 9 electrical leads and upon said central portions of said bias layer.
- 1 20 (original): A method for fabricating a magnetic head as described in claim 19 wherein
- 2 said barrier layer is comprised of Ru or Rh.

- 1 21. (original): A method for fabricating a magnetic head as described in claim 20 wherein
- 2 said barrier layer is comprised of Ru and has a thickness of from approximately 5 Å to
- 3 approximately 40 Å.
- 1 22. (original): A method for fabricating a magnetic head as described in claim 21 wherein
- 2 said barrier layer is formed with a thickness of approximately 20 Å.